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Notice of Allowability

Application No.

10/722,665

Examiner

Qutub Ghulamali

Applicant(s)

WORTMAN ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 03/27/2007.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Acknowledgement

1. This Office Action is responsive to the amendment filed on 03/27/2007.
2. Applicant has amended claims 1 and 7, the rejection under 35 U.S.C. 112, second, is therefore withdrawn.
3. The rejection of claim 16, under 35 U.S.C. 112, second is withdrawn in view of applicant's reasons noted on page 16 of the remarks section dated 03/27/2007.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Robert R. Jackson on 4/23/2007.

The application has been amended as follows:

IN THE CLAIMS:

Claim 1, line 8, after "sample the data signal", the following has been inserted
-- and thereby produce samples of the data signal; --.

Claim 3, line 2, after "wherein each of the", the words -- plurality of -- has been inserted.

Claim 7, line 8, after "selecting each of the", the words -- plurality of -- has been inserted.

Claim 7, line 17, after "use of one of the", the words -- plurality of -- has been inserted.

Claim 7, line 20, after "monitoring which of the", the words -- plurality of -- has been inserted.

Claim 17, line 3, the letter -- a -- has been inserted before "processing circuitry",

Claims 17 and 18, line 2, the word "defined" has been replaced with -- claimed --.

Claims 19 and 20, line 1, the word "defined" has been replaced with -- as claimed --.

Reason for Allowance

5. The following is an examiner's statement of reasons for allowance: The prior art of record in combination neither teaches nor renders obvious a method of determining an amount of phase shift of a reference clock signal for use in sampling a data signal skewed relative to the reference clock comprising: aligning a training pattern with training data in the data signal; using a sampling clock signal based on the reference clock signal to sample the data signal and advance the training pattern; comparing the advancing training pattern to the data signal samples until the training pattern is complete or until a lack of correspondence between the training pattern and a data

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signal sample is detected; shifting the phase of the sampling clock signal by a predetermined amount after completion of the comparing; re-aligning the training pattern with the training data if the comparing is completed by detection of a lack of correspondence; repeating the using, comparing, shifting, and re-aligning until the total amount of phase shift due to the shifting is at least greater than the duration of any two successive bits in the data signal; and sampling the data signal subsequent to the training data with a phase that is determined based at least in part on information as to which iterations of the comparing were completed by detection of a lack of correspondence. Such limitations as recited in independent claims 1, 7, 11, 13, 21, are neither anticipated nor rendered obvious by the prior art of record.

Claims 2-6, 8-10, 12, 14-20 are allowed by virtue of their dependency to claims highlighted above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QG.

June 12, 2007.


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER